93.7% in age group 1 (0 ≤ 12 years) to 83.3% in age group 5 (older than 65 years). In general the lowest average refill-based adherence rates were obtained with medicine items containing phenobarbitone and vitamin B1 (52.0% ± 37.8); phenobarbitone (63.5% ± 47.2); primidone metabolites (69.7% ± 47.2%); clonazepam (77.8% ± 184.8) and carbamazepine (80.9% ± 151.1) **CONCLUSIONS:** Most of the anti-epileptic drugs had unacceptable low refill-adherence rates. Refill-adherence rates of anti-epileptic drugs decreased with an increase in the age of patients.

**PND33**

## REFILL-ADHERENCE RATES OF ANTIPARKINSON MEDICATION IN THE PRIVATE HEALTH CARE SECTOR OF SOUTH AFRICA

Van der Merwe S, Lubbe MS, Du Plessis JM, Bekker E
North-West University, Potchefstroom, South Africa

**OBJECTIVES:** To investigate the prevalence of unacceptable refill-based adherence rates with antiparkinson medicine items. **METHODS:** A retrospective drug utilization study was performed on medicine claims data of a pharmacy benefit management company in South Africa during January 1, 2005 until December 31, 2008. Refill-based adherence rates were calculated for 8 768 antiparkinson medicine items that were prescribed more than once during a four-year period (January 1, 2005 to December 2008). The refill-based adherence rate was calculated per trade name by using the following equation: Refill-Adherence rate = (total number of days of antiparkinson medicine items supplied—days supplied at the last refill)/(date last claimed—date first claimed). (RSA Rand(R)/$US = 6.8595 on 31 Dec. 2007). [RSA Rand (R)/$US = 6.38112 (2005); 6.78812 (2006); 7.06926 (2007) and 8.27505 (2008)] **RESULTS:** A majority of antiparkinson medicine items (53.50%, n = 4,691) had unacceptably low refill-adherence rates below 90%, that accounted for 41.62% (n = R16,398,512.00) of the total cost (N = R39,402,898.20) of all antiparkinson medicine items included in this study. Only 36.78% (n = 3225) of antiparkinson medicine items had acceptable refill-adherence rates between 90% and 110%. Those with unacceptable high refill-adherence rates accounted for 9.72% (n = 852) of all antiparkinson medicine items and represented 6.5% (n = R2,574,597) of the total cost. No practical significant difference in the average refill-adherence rates was found between male (93.99% ± 186.99) and female (90.83% ± 175.21) patients. Biperidien, carbidopa/levodopa, and levodopa/benserazide containing products had on average unacceptable low refill-adherence rates (<90%). **CONCLUSIONS:** Although poor obedience to treatment schedules adds up to aggravation of Parkinson's disease leading to death and amplified health care cost, it seems that the refill-adherence rate of antiparkinson medicine items is not very favourable

**PND34**

## A PSYCHOMETRIC EVALUATION OF THE REVISED SCOPA DIARY CARD IN PARKINSON'S DISEASE PATIENTS

Buck PO[1], Castelli-Haley J[1], White RE[1], Rendas-Baum R[2], White MK[2]
[1]Teva Neuroscience, Kansas City, MO, USA; [2]QualityMetric Incorporated, Lincoln, RI, USA

**OBJECTIVES:** The Scales for Outcomes in Patients with Parkinson's disease Diary Card (SCOPA-DC) is a daily diary designed to measure motor impairment in Parkinson's disease (PD) patients with fluctuating symptoms. Previous qualitative research evaluated the content validity of the SCOPA-DC in the US and expanded it to measure non-motor symptoms. The current research examined the psychometric properties of the revised SCOPA-DC. **METHODS:** A sample of adults age 30 and older with self-reported doctor-confirmed PD were recruited, screened, and consented online from a Knowledge Networks panel. Eligible patients were mailed a study packet that contained the revised SCOPA-DC as well as a training video. The revised SCOPA-DC included 7 non-motor items: fatigue, memory, anxiety, pain, difficulty swallowing, frequent urination, and sweating. The diary was completed 7 times per day for 3 consecutive days. Consistent with the original SCOPA-DC, 3-day scores were calculated for each item. Higher scores indicated greater symptom severity. **RESULTS:** A total of 101 PD patients completed and returned the revised SCOPA-DC. The sample was 50.5% male and had been diagnosed with PD for an average of 7.4 years. Frequency distributions showed little missing data (approximately 1.0%), although items were generally right-skewed. Fatigue (29.4) and walking (28.7) had the highest mean scores; sweating (7.3) and difficulty swallowing (9.7) had the lowest mean scores. Factor analysis supported a 3-factor solution: mobility, physical functioning, and psychological functioning. These factors demonstrated good internal consistency (alpha = 0.83–0.87) and correlations with health-related quality of life instruments were suggestive of construct validity. **CONCLUSIONS:** In this US sample of PD patients with varied disease severity, the revised SCOPA-DC exhibited good psychometric properties, including evidence of reliability and validity. Furthermore, patients reported that the revised SCOPA-DC was clear and easy to complete. The revised SCOPA-DC holds promise for measuring a broad spectrum of fluctuating motor and non-motor PD symptoms.

**PND35**

## COMPARISON OF ANALYIC HIERARCHY PROCESS AND CONJOINT ANALYSIS METHODS IN ASSESSING TREATMENT ALTERNATIVES IN STROKE REHABILITATION

Ijzerman M[1], Bridges JF[2], Van Til J[1]
[1]University of Twente, Enschede, The Netherlands; [2]Johns Hopkins University, Baltimore, MD, USA

**OBJECTIVES:** There has been increasing interest novel HTA methods that will incorporate patient preferences in a more transparent and scientifically valid way. The fundamental problem of the assessment of benefits in HTA is the identification, ranking and valuation of multiple health care outcomes. We used two multi-criteria methods to rank and value five different treatments in stroke rehabilitation. Analytic Hierarchy Process (AHP) stems from operations research and is increasingly being used in health care to weigh patient-reported endpoints. Conjoint analysis (CA) is a stated preference method that often takes the discrete choice format. In CA, hypothetical scenarios are used to generate part-worth utilities for attributes. **METHODS:** To determine the clinical decision context and related criteria, a paper-and-pencil questionnaire was conducted among a sample of Dutch physiatrists united in a stroke interest group. From the lists of criteria (e.g. clinical benefit, impact of treatment) an expert panel defined the AHP decision structure as well as the conjoint analysis survey format. Finally, the complete questionnaire including the AHP and CA survey was sent out to 184 patients with ankle-foot impairments. Eventually, 89 patients completed both surveys. **RESULTS:** On average, the prediction of preferred treatment on a group level is similar for both AHP and CA. However. on an inidividual level there seems to be more variation in treatment preference. Using AHP weights, a vast majority preferred soft-tissue surgery where most patients preferred orthopedic shoes if CA weights were used. This may have been caused by labelling effects of the attributes. **CONCLUSIONS:** Both methods have there pros and cons in ranking and valuing patient-reported endpoints. Of the methods AHP is relatively easy to apply. In prediction of overall outcome, both methods perform equally. However, for individual treatment preference we observed some differences. It may be concluded that the decision structure, framing and labelling of the treatment attributes are more important than the specific elicitation method used.

**PND36**

## HEALTH STATUS COMPARISON BETWEEN STABLE PARKINSON'S DISEASE PATIENTS AND THOSE EXPERIENCING OFF-TIME

Buck PO[1], White RE[1], Castelli-Haley J[1], Rendas-Baum R[2], White MK[2]
[1]Teva Neuroscience, Kansas City, MO, USA; [2]QualityMetric Incorporated, Lincoln, RI, USA

**OBJECTIVES:** End-of-dose wearing-off is commonly experienced by Parkinson's disease (PD) patients who have used dopaminergic therapy for several years. Although investigations of wearing-off have traditionally focused on motor fluctuations, it is increasingly recognized that non-motor symptoms also vary between periods of "ON" (when PD symptoms are minimized due to medication) and "OFF" (when PD symptoms return). This study characterizes the self-reported health status of PD patients who experienced OFF-time as compared to those who were stable. **METHODS:** Recruited from an online panel maintained by Knowledge Networks, adults with self-reported doctor-confirmed PD were screened, consented, and completed a cross-sectional survey. Frequency of OFF-time was measured using the Unified Parkinson's Disease Rating Scale Part IV. Demographics, PD-specific characteristics, the 9-item Wearing-off Questionnaire (WOQ-9), the Short Form-12v2 (SF-12), and the Parkinson's Disease Questionnaire-8 (PDQ-8) were also assessed. **RESULTS:** Data were available for 165 PD patients (mean age = 66.6 years; 52.7% male; mean time from diagnosis = 7.1 years). Twenty-five (15%) of the patients reported experiencing no OFF-time on a typical day and were classified as stable; the remaining 85% reported experiencing OFF-time. There were few significant differences between the two groups in terms of demographics and PD history. Compared to those experiencing OFF-time, stable patients reported fewer motor and non-motor wearing-off symptoms based on the WOQ-9 ($P < 0.05$), as well as better health on the Physical and Mental Component Summary scores of the SF-12 ($P < 0.05$) and the Summary Index score of the PDQ-8 ($P < 0.01$). **CONCLUSIONS:** PD patients who experienced at least some OFF-time on a typical day reported worse overall physical and mental well-being than stable patients. Furthermore, both motor and non-motor wearing-off symptoms differed between the two patient groups. Additional research to understand the consequences of OFF-time would be useful, especially as it pertains to non-motor symptoms.

**PND37**

## PATIENT AND PHYSICIAN GLOBAL PERCEPTION OF LEVODOPA/CARBIDOPA/ENTACAPONE VS. LEVODOPA/CARBIDOPA IN PATIENTS WITH PARKINSON'S DISEASE EXPERIENCING EARLY WEARING-OFF

Ruyra J[1], Balañá M[1], Lahoz R[1], Hernandez B[2], Tolosa E[2]
[1]Novartis Farmacéutica S.A., Barcelona, Spain; [2]Hospital Clínic de Barcelona, Barcelona, Spain

**OBJECTIVES:** To compare patients' and physicians' global perceptions of Parkinson's disease (PD) in two treatment groups: levodopa/carbidopa/entacapone (LCE) vs. levodopa/carbidopa (LC). **METHODS:** Multicentre, double-blind, randomised phase IV study. Ninety-five PD patients with early wearing-off (WO) and deterioration of activities of daily living (ADLs) were randomised to receive LCE (n = 46) or LC (n = 49) with a 3-month follow-up. Patient and physician global perception of PD was assessed at the end of the study. The PDQ-39 quality of life (QoL) questionnaire, and the longitudinal course of PD using the different parts of UPDRS (part I, part II, part III, and IV) were evaluated along the study. Differences between health improvement by patient and physician were analyzed by the Mann Whitney U-test. The mean differences from baseline to final visit in PDQ-39 and in UPDRS (part I, II, IIII IV) score were analyzed by an ANCOVA model. **RESULTS:** Mean (SD) age was 66.4 ± 8.6 years and 50.0% were women. Half percent of patients showed stage II according to the Hoehn and Yahr classification. Patient global perception showed a significant better score in the LCE than in LC group (–0.9 ± 1.0 LCE and –0.4 ± 1.17 LC, p = 0. 0291). Similar results were obtained by the physician (–0.3 ± 0.8 vs. –0.4, p = 0. 0017). The adjusted mean differences in the PDQ-39 showed a trend for a higher improvement in QoL in the LCE group (6.3 ± 20.4 vs. 0.81 ± 15.6), although did not reach statistical significance. The UPDRS evaluation showed a significant higher